

NAVY DEPARTMENT
BUREAU OF NAVIGATION

WASHINGTON, D. C.

4 April 1923.

NO-MAR

Bureau of Navigation News Bulletin No. 20:

(It is requested that the News Bulletin be circulated among
all officers and that items of interest to enlisted men be
published to them)

1. Enlistments:

Total 1st. enlistments required for year ending July
1, 1923 (estimated). 35,000
1st. enlistments obtained 1 July 1922 to 22 March 1923
. 23,741
Deductions due to underage and physical disa-
bility discharges. 1,453
Net 1st. enlistments 22,288
1st. enlistments to be obtained by 7/1/23 12,712

2. Officers. Examination for Promotion: Attention is invited
to General Order No. 49, of 28 May 1921.

All line officers due for promotion to the ranks of lieutenant
commander, lieutenant, and lieutenant (jg) as a result of the
coming redistribution of 8 June 1923 will appear for supervisory
examination soon after the Fleets return North. The Bureau plans
on completing these examinations during the month of May. Orders
are now being issued down to and including:

Laurence Wild	Lieutenant to Lieut. Commander
Julius C. Kinsky	Lieutenant (jg) to Lieutenant
Laurence A. Abercrombie	Ensign to Lieutenant (jg)

A few officers junior to the above named may be promoted as a
result of the redistribution, but until the number of promotions
is definitely known no orders for examinations of additional officers
will be issued.

It is an accepted principle that all officers should be ready
for examinations at all times. The number of failures to successfully
pass the examinations has increased since the Navy Department Exam-
ining Board, in its effort to standardize the requirements for promo-
tion of all officers, has been sending out the questions for supervisory
examinations of officers not stationed in the vicinity of Washington
or Mare Island. The records show that recently nearly 20% of the
officers so examined failed on supervisory examinations and were
consequently required to appear before Statutory Boards for reexamina-
tion. Failure before the Statutory Boards, either on examination or
reexamination, entails suspension from promotion to the next higher
grade for a period of six months with consequent loss of numbers. Of
the officers thus reexamined before the regular Board, 13% have failed
to pass.

The subjects in which failures have occurred cover the entire scope of examinations but were noticeably great in navigation and engineering. It, therefore, behooves officers to prepare themselves in all subjects. Examination papers are filed with the permanent records of officers, and it is desirable not only to pass but to pass good examinations.

There is little doubt but that any officer can pass the examinations if he has worked to prepare for them; the failures above noted are therefore due to one cause, namely, failure to prepare themselves. While the passing of a creditable examination for promotion is more a matter of particular interest to the officers themselves, yet the Bureau feels that the interest of the command in which the officer is serving is also promoted by a record of no failures. It is, therefore, requested that commanding officers give every assistance to officers now and hereafter due for examination for promotion. At the conclusion of the examinations now pending a table will be compiled showing numbers and stations upon which serving, but not names of individuals, of failures. This table may be useful in indicating the cause of failures, and if so it will be published to the Service.

3. Naval Academy: Beginning with 1925, the following changes have been made in the entrance examinations:

Eliminate:

- (1) Spelling
- (2) Geography
- (3) Grammar (as a separate subject)
- (4) Algebra (including quadratics)
- (5) Arithmetic

Include:

- (1) English Composition and Literature
- (2) Ancient History
- (3) Algebra (to include Quadratics and beyond)
- (4) Languages; choice of Latin, French, or Spanish (to cover 1 year's work)
- (5) Science; choice of Physics, Chemistry, or General Science (to cover 1 year's work)

For the past two years candidates for Midshipmen may also be accepted by certificate in lieu of the mental examination. The Academic Board will consider and may accept properly attested certificates of colleges, universities, preparatory and high schools, etc., provided the candidate has acquired proficiency in a proper number of the subjects specified in the requirements for entrance to the Academy.

4. Naval Reserve Force: Attention is invited to General Order #96, regarding the Naval Reserve Force.

Important legislation recommended by the Department for the Naval Reserve Force failed of enactment in the Session of Congress which ended 4 March. This legislation if passed, would have provided subsistence for reservists on week-end cruises and would have allowed men of the Naval Reserve Force to be confirmed in the lowest ratings without the requirement of three months active sea service.

The instructions regarding the organization and administration of the Naval Reserve Force are being revised and will be sent to the Public Printer in the near future. Approved changes recommended by a Reserve Board, recently convened for the purpose of considering essential changes, have been issued in the form of a circular letter to Commandants of Naval Districts. These changes eliminate the requirement of sea duty on a combatant ship for confirmation in the Naval Reserve Force and prescribe a minimum of 6 months service in rating for enlisted men before they become eligible for advancement.

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(Beginning with this issue, Bureau of Navigation News Bulletin will be distributed to all ships and stations. Copies of Bulletins previously issued are not available).

NAVY DEPARTMENT
BUREAU OF NAVIGATION

WASHINGTON, D. C.

NC-MAR

10 April 1923.

Bureau of Navigation News Bulletin No. 21.

(It is requested that the News Bulletin be circulated among
all officers and that items of interest to enlisted men be
published to them.)

1. Navy Register : It is expected that the Navy Register
will be received from the printer the latter part of this month and
will be ready for distribution about May first.

2. Uniform Regulations: The new uniform regulation book will,
it is hoped, be ready for distribution sometime in May. Completion
has been delayed from time to time on account of difficulties en-
countered with the plates.

3. Enlisted Statistics 29 March 1923.

Total 1st. enlistments required for year ending	
1 July 1923 (estimated).....	35,000
1st. enlistments 7/1/22 to 3/29/23.....	24,117
Deductions due to underage and physical	
disability discharges	1,493
Net 1st. enlistments.....	22,624
1st. enlistments to be obtained by 7/1/23.....	12,376

For week ending 29 March 1923:

1st. enlistments.....	376
Re-enlistments	97
Extensions.....	2
Total.....	475

Honorable Discharges: Cases have come to the attention of
the Bureau where Commanding Officers have recommended men for honorable
discharge in accordance with paragraph 8111 of the Bureau of Navigation
Manual, too late to receive the Bureau's action before the expiration
of the enlistment. It is suggested that any cases which, in the
opinion of Commanding Officers, deserve special consideration, in
accordance with the provisions of Article 8111, Bureau of Navigation
Manual, be referred to the Bureau in ample time to receive a reply
before the date of expiration of enlistment.

C.P.O. Ratings: The Chief of Bureau has authorized the
promotion of eighty-nine (89) men to the rating of chief petty officer,
acting appointment, to take effect 1 May 1923. These ratings are
divided as follows:

C.B.M.	2	C.F.C.	1	C.M.M.	5
C.T.C.	5	C.E.M.	15	C.Mo.M.M.	15
C.Q.M.	5	C.R.M.	15	C.Y.	12
C.S.M.	1	C.S.F.	2	C.Ph.M.	10

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In view of the keen competition for advancement in rating to chief petty officer, the letters of authorization for these advancements will give the Commanding Officers authority to withhold the promotion in all cases where the men in question have not shown themselves to be of the highest type and worthy of promotion.

4. Hydrographic News: The U.S.S. DENVER, attached to the Special Service Squadron in Central American Waters, on April 9 will complete docking, overhaul, and the installation of a Sonic Depth Finder. This ship will sail for its regular station in the Gulf about April 10th and enroute will investigate for the Hydrographic Office of the Navy Department, by means of the Sonic Depth Finder, a reported 21 fathom bank reported E.N.E. of Cape Hatteras in approximate latitude $35^{\circ} 33'$ North, longitude $74^{\circ} 10'$ West.

There are many shoals and banks carried on the navigational charts published by Hydrographic Office, some of which are near the steamer routes. The position or existence of many of these shoals is not accurately known. There are also areas of considerable extent in the oceans which have never been explored.

The U.S.S. DENVER during her stay in southern waters will investigate for the Hydrographic Office by means of a Sonic Depth Finder some of these doubtful dangers and unexplored ocean areas which are to the eastward of Central America and North of South America.

Among the banks and shoals to be investigated are: Sacramento Shoal, Gulf of Campeche, lat. $20^{\circ} 50'$ N., lon. 93° W.; Misteriosa Bank, lat. $18^{\circ} 50'$ N., lon. $83^{\circ} 50'$ W.; and Serranilla Bank, lat. $15^{\circ} 50'$ N., lon. $79^{\circ} 30'$ W. in the Caribbean Sea.

There are two unexplored sea areas to the northward of Columbia and Venezuela of approximately 57000 and 45000 square miles respectively and one to the eastward of Costa Rica of about 15000 square miles in which there are no records of any soundings on the charts. The DENVER will run lines of soundings across these areas. This reconnaissance of these areas with the Sonic Depth Finder will develop some of the contours thus enabling the Hydrographic Office to form an opinion as to the need for more extensive surveys to locate possible shoals or banks in these unexplored sea areas.

NAVY DEPARTMENT BUREAU OF NAVIGATION

WASHINGTON, D. C.

NO-MAR

17 April 1923.

Bureau of Navigation News Bulletin No. 22:

(It is requested that the News Bulletin be circulated among all officers and that items of interest to enlisted men be published to them.)

1. Enlistments:

1st. enlistments required 1/7/22 to 1/7/23 (estimated).....	35,000
1st. enlistments obtained 1/7/22 to 5/4/23.....	24,494
Deductions due to underage and physical disability discharges.....	1,539
Net 1st. enlistments.....	22,955
1st. enlistments to be obtained by 1/7/23.....	12,045

For week ending 5 April 1923:

1st. enlistments.....	377
Re-enlistments.....	70
Extensions.....	0
TOTAL	447

2. Officer Personnel:

In Service:

	1 July 1922	31 March 1923
Line - - - - -	4436	4260
Medical - - - - -	796	764
Supply - - - - -	609	587
Construction - - - - -	234	226
Civil Engineer - - - - -	107	101
Prof. of Math. - - - - -	9	9
Chaplain - - - - -	86	85
Dental - - - - -	157	149
TOTAL - - - - -	6434	6181
Midshipmen - - - - -	2183	2119
Chief Warrants - - - - -	493	519
Warrants - - - - -	904	835
Naval Reserves on active duty - - - - -	15	27

RETIRED OFFICERS:

Regular Navy - - - - -	1126	1222
Naval Reserve - - - - -	99	97

The following is quoted from a report of the commanding officer of the U.S.S. ARGONNE:

"One officer has recently joined the ship as a result of special request, in order to secure active sea service. The Commanding Officer has recently received an application from another officer for the same reason. It is believed that this service affords many advantages to the commissioned personnel which should be brought more specifically to their attention. As a general rule, officers when ordered to this service seem to think they are more or less out of the Navy. This erroneous impression should be corrected as it is believed that there is no other branch of the Naval Service at the present day which will give a man more and better experience in the rudiments of his profession, particularly in navigation and seamanship. The experience to be gained in the handling of passengers and cargo is also of value."

The Bureau is in receipt from time to time of requests from officers for duplication of their official photographs on file in the Bureau. These official photographs are copyrighted by the photographic firm making the negative and the Department has not the authority to make copies of these pictures.

3. Sonic Depth Finder: Dr. H. C. Hayes, Ph.D, of the Experimental Station of the Bureau of Engineering, Navy Department, in June 1922, completed the development of an apparatus for obtaining ocean depths by an instrument called the Sonic Depth Finder. Successful tests were made and excellent results were obtained with this apparatus by the U.S.S. STEWART on a voyage from Newport, R.I. to Gibraltar, and from Gibraltar to Manila, P.I.

The design of the Sonic Depth Finder is based upon the theory that a sound impulse emanating from a point near the surface of a body of water will be reflected back to that point by any submerged surface within its range of propagation. This theory applies particularly to the sea bottom. All that is necessary is to know the velocity of sound in water and to perfect some method of accurately measuring the time from the moment the sound is produced till it is heard again reflected back. This accurate measurement of the time interval is now perfected.

For measuring water of depths greater than fifty fathoms up to such depths as are encountered in mid ocean it is necessary to use with the Sonic Range Finder a high power vibratory sound transmitter and also a directional form of sound receiver.

In connection with the study of earth movements in California, there was prepared for publication by the Seismology Society of America, with the cooperation of many different agencies, a Fault Map of the land area most liable to earthquake disturbances on the West Coast. As the observations in 1922 accumulated and the map grew, it became clear that many of these faults lead to the sea shore and no doubt continued beneath the sea.

The Carnegie Institution of Washington having learned of the Sonic Depth Finder developed by Dr. Hayes, requested the Hydrographic Office which has charge of Naval Surveys, to have soundings taken off the Coast of California with this new apparatus. The Navy Department desiring to be of every possible assistance in furthering this important scientific research fitted out the U.S.S. HULL and CERRY with the Sonic Depth Finder.

The sounding operations were commenced in November 1922, and parallel lines of soundings were run on courses 240° and 60° true from the 100 fathom curve to the 2,000 fathom curve. The lines were run ten miles apart from San Francisco to Point Conception, and five miles apart from Point Conception to Point Descanso, Mexico. The average distance between soundings on each line is one to two miles; the distance covered was 5,800 miles and the area covered 34,000 square miles. The vessels steamed at 12 knots speed and completed the survey in 38 working days, obtaining approximately 5,000 soundings.

The observations obtained by the survey of the U.S.S. HULL and CERRY has permitted the construction of a contour map of the ocean floor by the Hydrographic Office from the Coast line to a depth of 2,000 fathoms - 12,000 feet. This is the first successful contour map of a zone of deep sea soundings ever made. The chart represents the configuration of the ocean floor in the region, showing the submerged hills, valleys, cliffs, and precipices. The recent earthquake in Chile suggests that the undersea portions of coastal faults may be most active and dangerous.

It is perfectly clear from the contour map that a number of very steep slopes or cliffs have been located some of which may be fault scarfs of considerable elevation. The indications are that the chart also locates the so-called continental shelf which is commonly thought of as representing the structural demarcation between a sinking ocean bed and a rising continent.

The future study of the inaccessible ocean depths appears now to be of high precision.

Regions in which changes occur frequently such as the coast of Chile or the Hawaiian Island group can be studied with great care and detail and the direction in which future displacement may be expected can be ascertained.

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